
Impact of Covid-19 on incidence and mortality of all cancers in Northern Ireland

(A comparison between April-December of 2020 and 2018-2019)

Further information

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The incidence, prevalence and survival statistics in this publication are designated as official statistics signifying that they comply with the Code of Practice for Official Statistics.



INCIDENCE

During the April-December period when Covid-19 was present the number of cases of cancer diagnosed decreased by 18.2% (1,980 patients) from 10,861 per year in 2018 - 2019 to 8,881 in 2020.

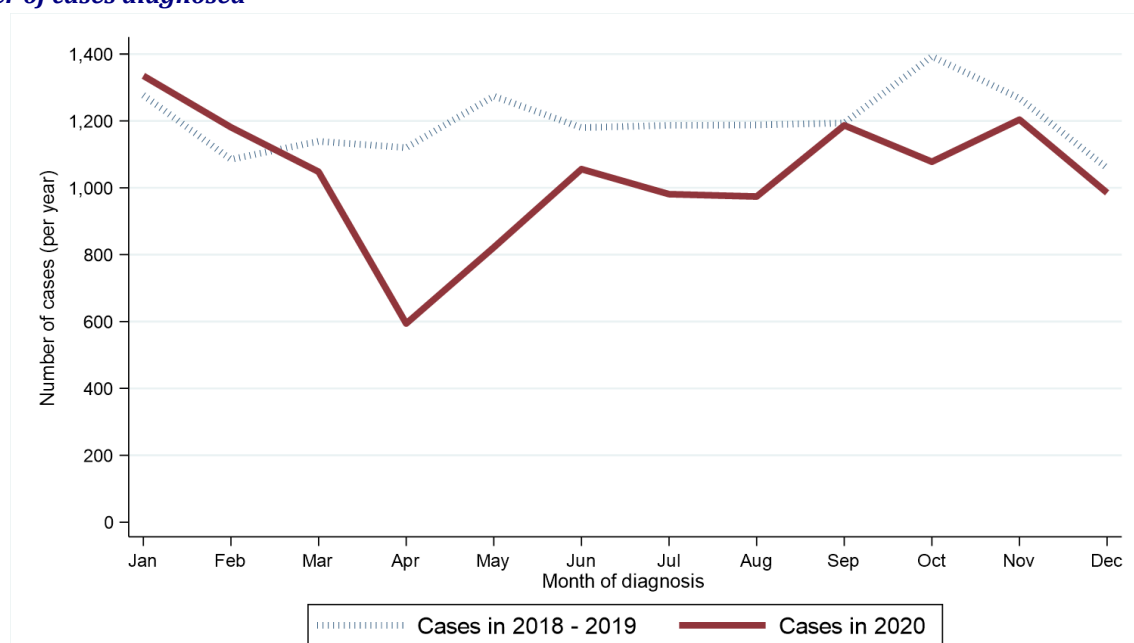
Table 1: Number of cancer cases diagnosed in 2018-2020 by month and year of diagnosis

Period of diagnosis	Annual total	Month diagnosed											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2018-2019*	14,362	1,277	1,085	1,139	1,120	1,274	1,180	1,187	1,188	1,194	1,393	1,268	1,059
2020	12,445	1,335	1,181	1,048	594	822	1,056	981	974	1,187	1,078	1,204	985

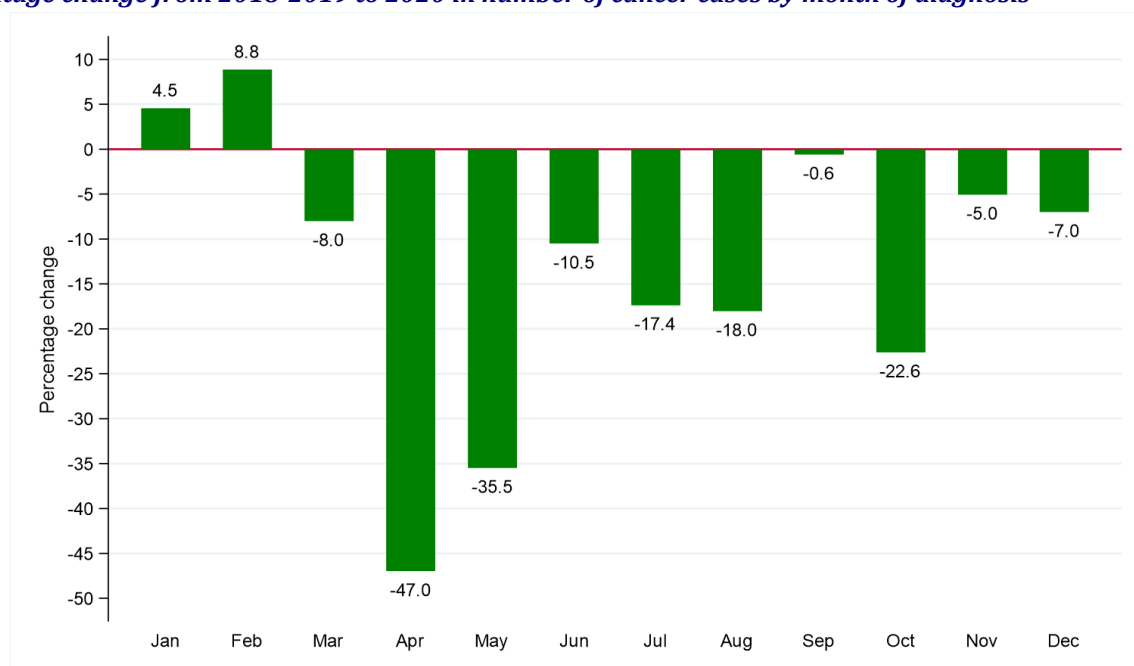
* Average cases per year rounded to the nearest integer. Row sums may thus differ slightly from the total.

Figure 1: Number of cancer cases diagnosed in 2018-2020 by month and year of diagnosis

(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of cancer cases by month of diagnosis



GENDER

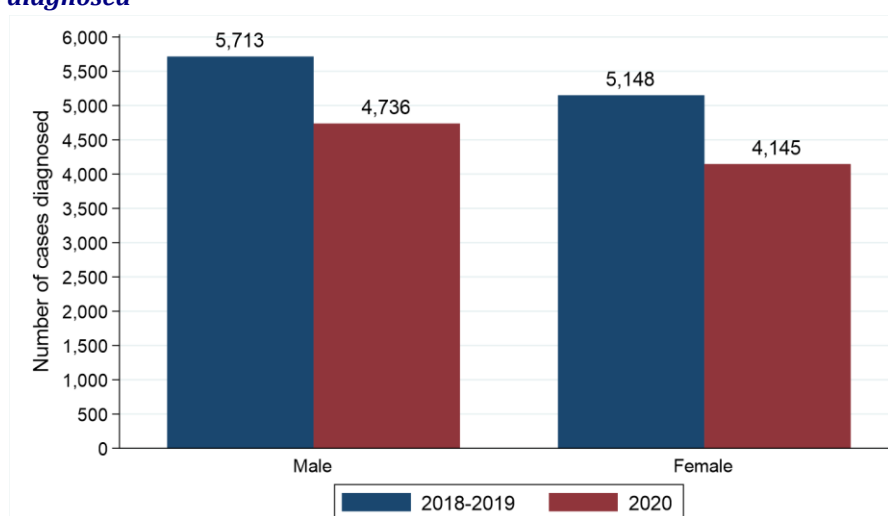
Excluding the first quarter of each year among males the number of cases of cancer diagnosed decreased by 17.1% from 5,713 per year in 2018 - 2019 to 4,736 in 2020. Between the same two time periods the number of cases among females decreased by 19.5% from 5,148 per year to 4,145. The change in case distribution by gender between 2018 - 2019 and 2020 was not statistically significant.

Table 2: Number and proportion of cancer cases diagnosed in April-December of 2018-2020 by gender and period of diagnosis

Gender	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
Male	5,713 (52.6%)	4,736 (53.3%)	-17.1% (977 patients)
Female	5,148 (47.4%)	4,145 (46.7%)	-19.5% (1,003 patients)
All persons	10861	8,881	-18.2% (1,980 patients)

* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Figure 2: Cancer cases diagnosed in April-December of 2018-2020 by gender and period of diagnosis
(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of cancer cases by gender



AGE

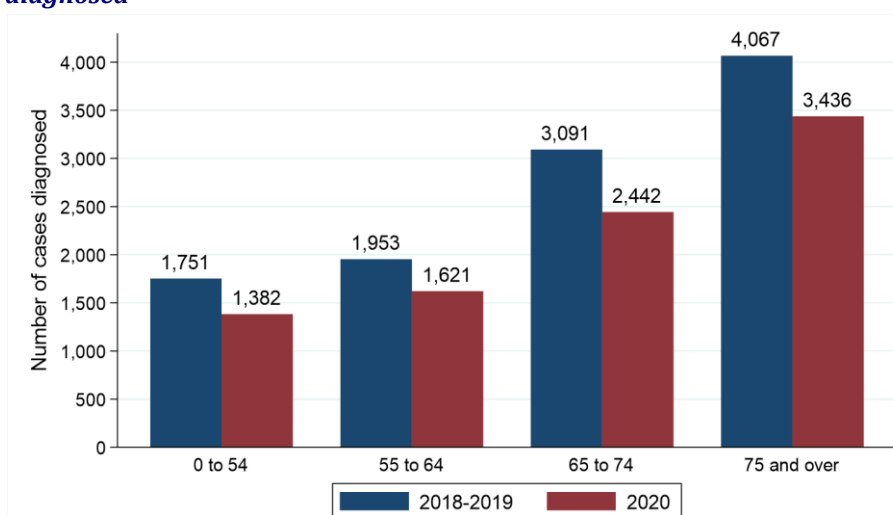
Excluding the first quarter of each year among people aged 0 to 54 the number of cases of cancer diagnosed decreased by 21.1% from 1,751 per year in 2018 - 2019 to 1,382 in 2020. Between the same two time periods, the number of cases among people aged 75 and over decreased by 15.5% from 4,067 per year to 3,436. The change in case distribution by age between 2018 - 2019 and 2020 was not statistically significant.

Table 3: Number and proportion of cancer cases diagnosed in April-December of 2018-2020 by age and period of diagnosis

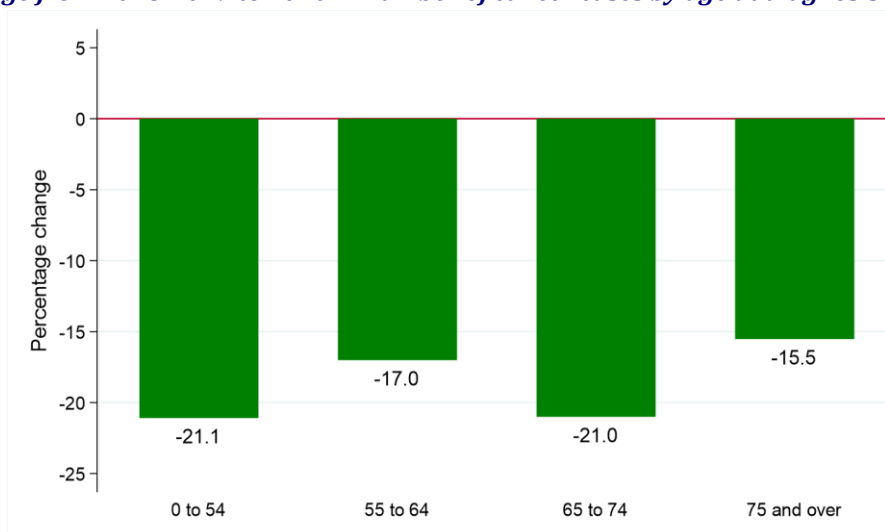
Age group	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
0 to 54	1,751 (16.1%)	1,382 (15.6%)	-21.1% (369 patients)
55 to 64	1,953 (18.0%)	1,621 (18.3%)	-17.0% (332 patients)
65 to 74	3,091 (28.5%)	2,442 (27.5%)	-21.0% (649 patients)
75 and over	4,067 (37.4%)	3,436 (38.7%)	-15.5% (631 patients)
All ages	10861	8,881	-18.2% (1,980 patients)

* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Figure 3: Cancer cases diagnosed in April-December of 2018-2020 by age and period of diagnosis
(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of cancer cases by age at diagnosis



HEALTH AND SOCIAL CARE TRUST

Excluding the first quarter of each year among residents of Northern HSCT the number of cases of cancer diagnosed decreased by 23.6% from 2,922 per year in 2018 - 2019 to 2,233 in 2020. Between the same two time periods the number of cases among residents of South Eastern HSCT decreased by 14.1% from 2,267 per year to 1,948. The change in case distribution by HSCT between 2018 - 2019 and 2020 was statistically significant ($p = 0.016$).

Table 4: Number and proportion of cancer cases diagnosed in April-December of 2018-2020 by Health and Social Care Trust and period of diagnosis

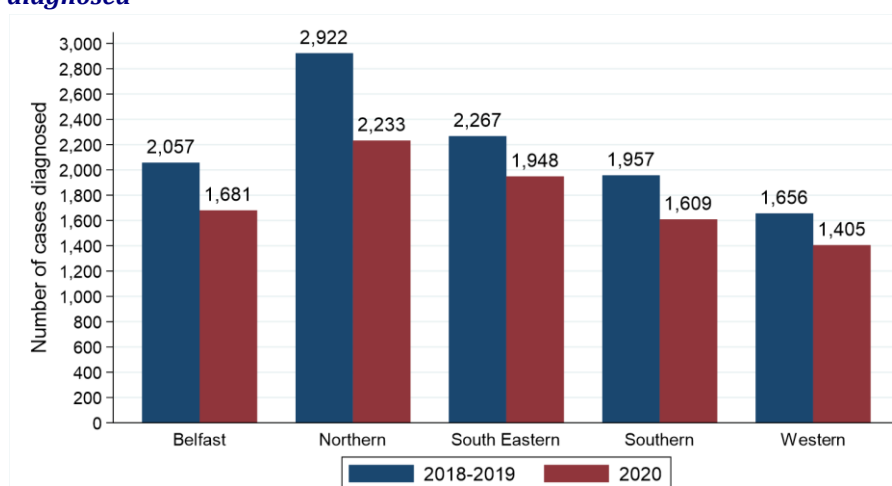
Health and Social Care Trust	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
Belfast HSCT	2,057 (18.9%)	1,681 (18.9%)	-18.3% (376 patients)
Northern HSCT	2,922 (26.9%)	2,233 (25.1%)	-23.6% (689 patients)
South Eastern HSCT	2,267 (20.9%)	1,948 (21.9%)	-14.1% (319 patients)
Southern HSCT	1,957 (18.0%)	1,609 (18.1%)	-17.8% (348 patients)
Western HSCT	1,656 (15.2%)	1,405 (15.8%)	-15.2% (251 patients)
Northern Ireland	10861	8,881	-18.2% (1,980 patients)

* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

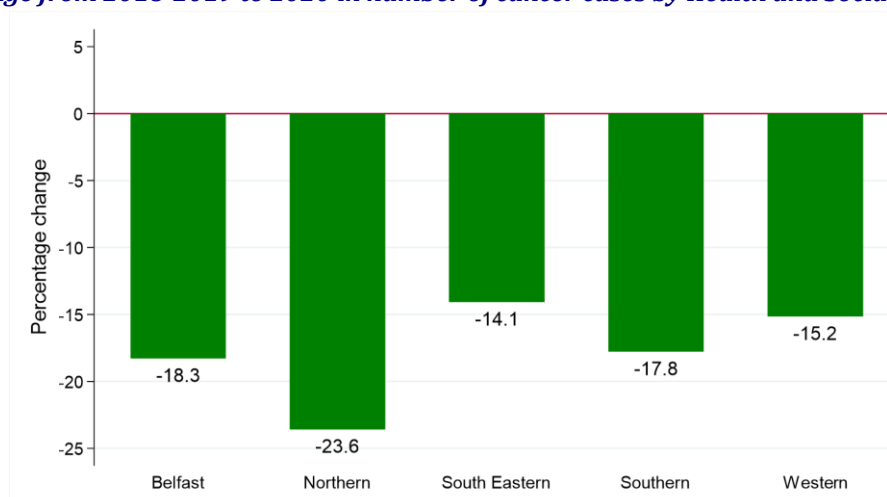
Note: Cases with unknown Health and Social Care Trust are included in totals

Figure 4: Cancer cases diagnosed in April-December of 2018-2020 by Health and Social Care Trust and period of diagnosis

(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of cancer cases by Health and Social Care Trust



DEPRIVATION

Excluding the first quarter of each year among residents of the most deprived areas the number of cases of cancer diagnosed decreased by 12.7% from 1,837 per year in 2018 - 2019 to 1,603 in 2020. Between the same two time periods the number of cases among residents of the least deprived areas decreased by 25.5% from 2,402 per year to 1,789. The change in case distribution by deprivation quintile between 2018 - 2019 and 2020 was statistically significant ($p = 0.001$).

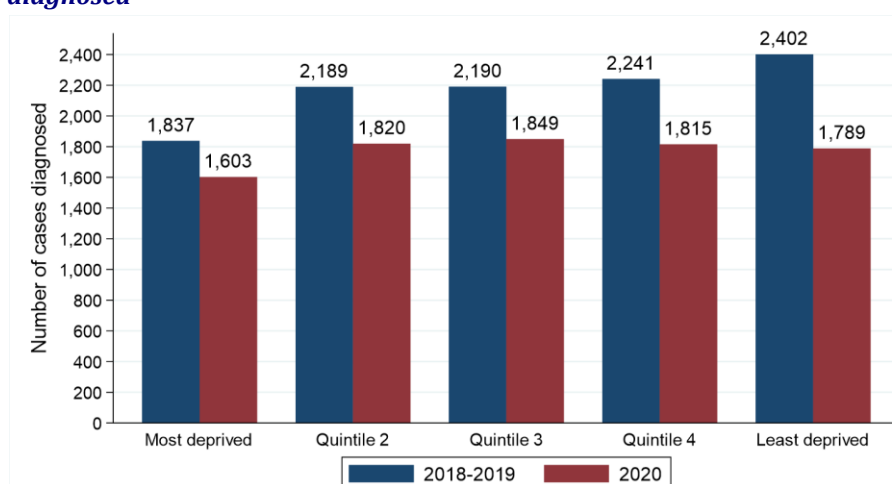
Table 5: Number and proportion of cancer cases diagnosed in April-December of 2018-2020 by deprivation quintile and period of diagnosis

Deprivation quintile	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
Most deprived	1,837 (16.9%)	1,603 (18.0%)	-12.7% (234 patients)
Quintile 2	2,189 (20.2%)	1,820 (20.5%)	-16.9% (369 patients)
Quintile 3	2,190 (20.2%)	1,849 (20.8%)	-15.6% (341 patients)
Quintile 4	2,241 (20.6%)	1,815 (20.4%)	-19.0% (426 patients)
Least deprived	2,402 (22.1%)	1,789 (20.1%)	-25.5% (613 patients)
Northern Ireland	10861	8,881	-18.2% (1,980 patients)

* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Note: Cases with unknown deprivation quintile are included in totals

Figure 5: Cancer cases diagnosed in April-December of 2018-2020 by deprivation quintile and period of diagnosis
(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of cancer cases by deprivation quintile



CANCER TYPE

Excluding the first quarter of each year the number of gallbladder cases diagnosed increased by 24.7% from 77 per year in 2018 - 2019 to 96 in 2020. Between the same two time periods the number of cases of melanoma diagnosed decreased by 38.6% from 334 per year to 205.

Between 2018 - 2019 and 2020 (excluding the first quarter of each year) the number of cases of:

- Non-melanoma skin cancer diagnosed decreased by 32.0% from 3,137 cases per year to 2,133 cases.
- Breast cancer diagnosed decreased by 11.0% from 1,118 cases per year to 995 cases.
- Lung cancer diagnosed decreased by 7.5% from 1,029 cases per year to 952 cases.
- Prostate cancer diagnosed decreased by 14.5% from 1,035 cases per year to 885 cases.
- Colorectal cancer diagnosed decreased by 12.0% from 906 cases per year to 797 cases.

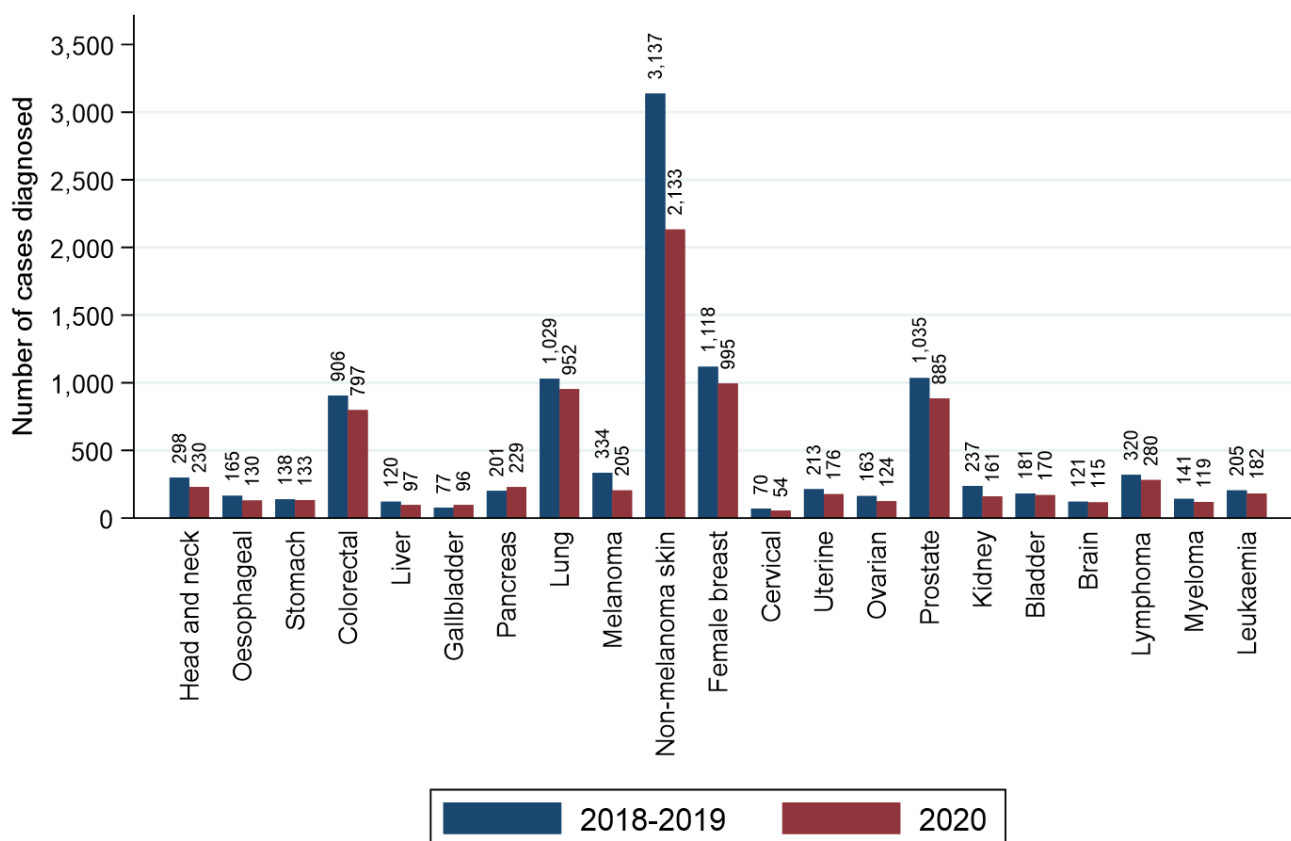
The change in case distribution by cancer type between 2018 - 2019 and 2020 was statistically significant ($p < 0.001$).

Table 6: Number and proportion of cancer cases diagnosed in April-December of 2018-2020 by cancer type and period of diagnosis

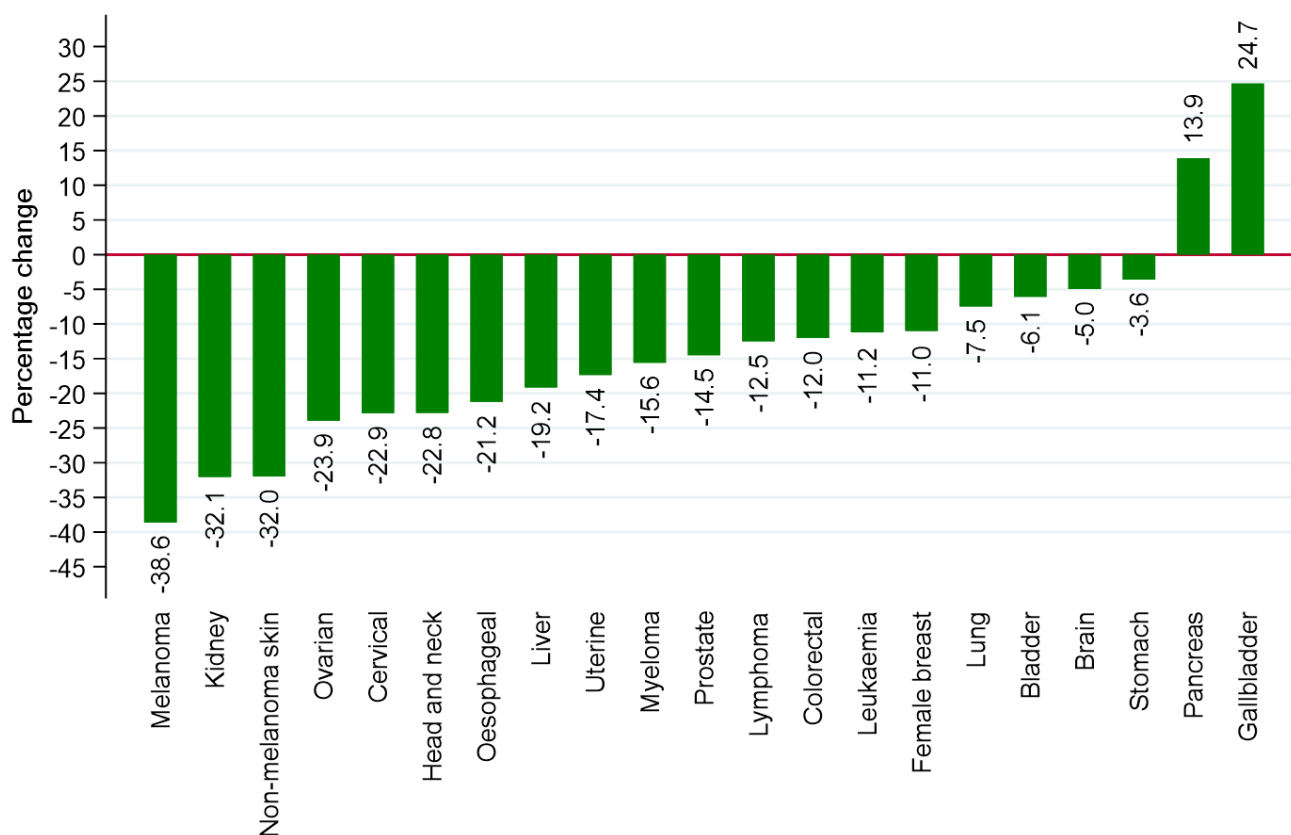
Cancer type	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
Head and neck	298 (2.7%)	230 (2.6%)	-22.8% (68 patients)
Oesophageal	165 (1.5%)	130 (1.5%)	-21.2% (35 patients)
Stomach	138 (1.3%)	133 (1.5%)	-3.6% (5 patients)
Colorectal	906 (8.3%)	797 (9.0%)	-12.0% (109 patients)
Liver	120 (1.1%)	97 (1.1%)	-19.2% (23 patients)
Gallbladder	77 (0.7%)	96 (1.1%)	+24.7% (19 patients)
Pancreas	201 (1.9%)	229 (2.6%)	+13.9% (28 patients)
Lung	1,029 (9.5%)	952 (10.7%)	-7.5% (77 patients)
Melanoma	334 (3.1%)	205 (2.3%)	-38.6% (129 patients)
Non-melanoma skin	3,137 (28.9%)	2,133 (24.0%)	-32.0% (1,004 patients)
Female breast	1,118 (10.3%)	995 (11.2%)	-11.0% (123 patients)
Cervical	70 (0.6%)	54 (0.6%)	-22.9% (16 patients)
Uterine	213 (2.0%)	176 (2.0%)	-17.4% (37 patients)
Ovarian	163 (1.5%)	124 (1.4%)	-23.9% (39 patients)
Prostate	1,035 (9.5%)	885 (10.0%)	-14.5% (150 patients)
Testicular	51 (0.5%)	44 (0.5%)	-13.7% (7 patients)
Kidney	237 (2.2%)	161 (1.8%)	-32.1% (76 patients)
Bladder	181 (1.7%)	170 (1.9%)	-6.1% (11 patients)
Brain	121 (1.1%)	115 (1.3%)	-5.0% (6 patients)
Thyroid	113 (1.0%)	106 (1.2%)	-6.2% (7 patients)
Lymphoma	320 (2.9%)	280 (3.2%)	-12.5% (40 patients)
Myeloma	141 (1.3%)	119 (1.3%)	-15.6% (22 patients)
Leukaemia	205 (1.9%)	182 (2.0%)	-11.2% (23 patients)

* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Figure 6: Cancer cases diagnosed in April-December of 2018-2020 by cancer type and period of diagnosis
(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of cancer cases by cancer type



CANCER MORTALITY

During the April-December period when Covid-19 was present the number of deaths from cancer increased by 4.5% from 3,317 per year in 2018 - 2019 to 3,466 in 2020.

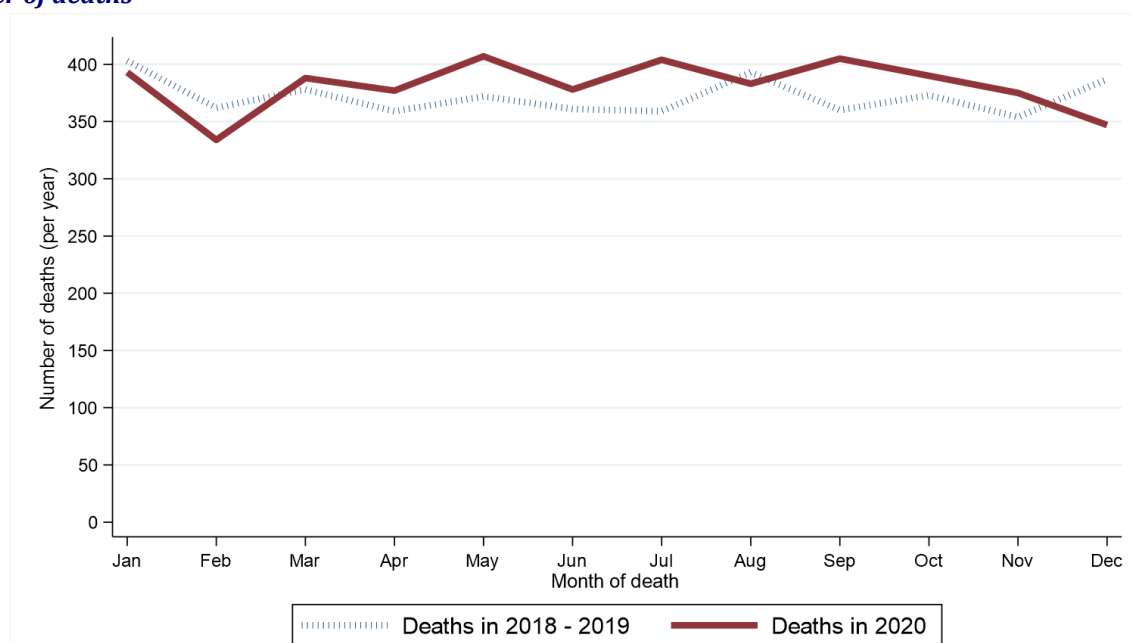
Table 7: Number of cancer deaths in 2018-2020 by month and year of death

Period of death	Annual total	Month death occurred											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2018-2019*	4,460	403	362	378	359	372	361	359	393	360	373	354	387
2020	4,581	393	334	388	377	407	378	404	383	405	390	375	347

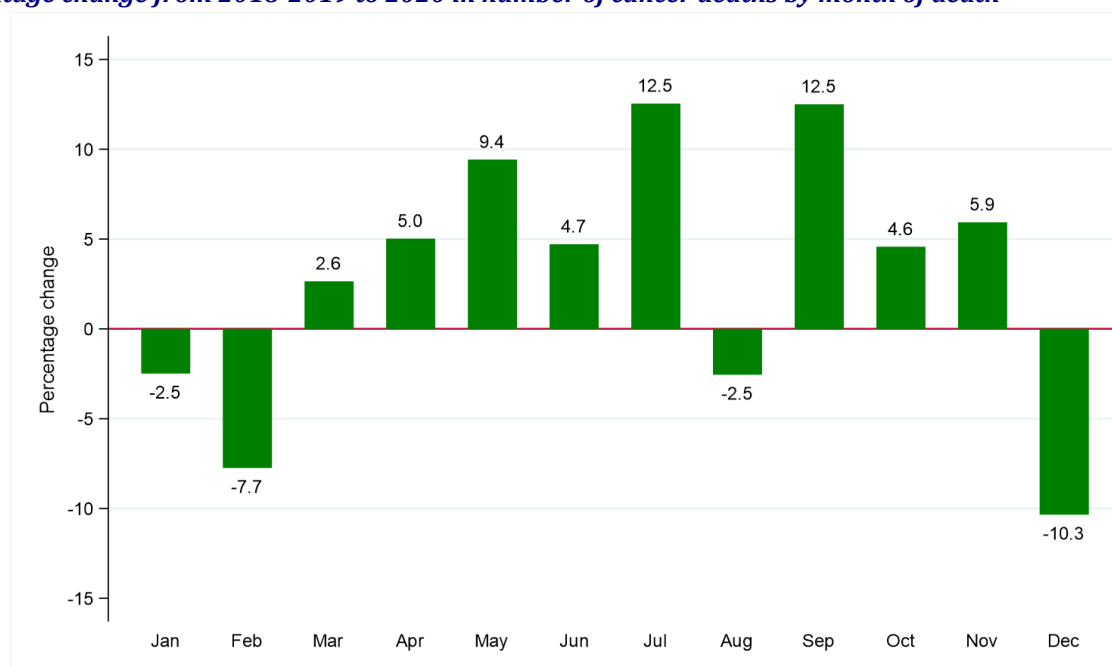
* Average deaths per year rounded to the nearest integer. Row sums may thus differ slightly from the total.

Figure 7: Number of cancer deaths in 2018-2020 by month and year of death

(a) Number of deaths



(b) Percentage change from 2018-2019 to 2020 in number of cancer deaths by month of death



GENDER

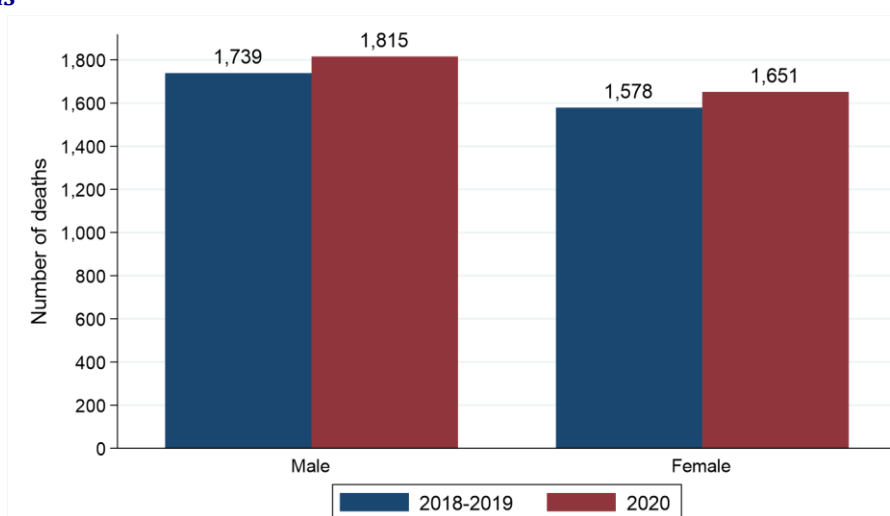
Excluding the first quarter of each year among males the number of deaths from cancer increased by 4.4% from 1,739 per year in 2018 - 2019 to 1,815 in 2020. Between the same two time periods the number of deaths among females increased by 4.6% from 1,578 per year to 1,651. The change in distribution of deaths by gender between 2018 - 2019 and 2020 was not statistically significant.

Table 8: Number and proportion of cancer deaths in April-December of 2018-2020 by gender and period of death

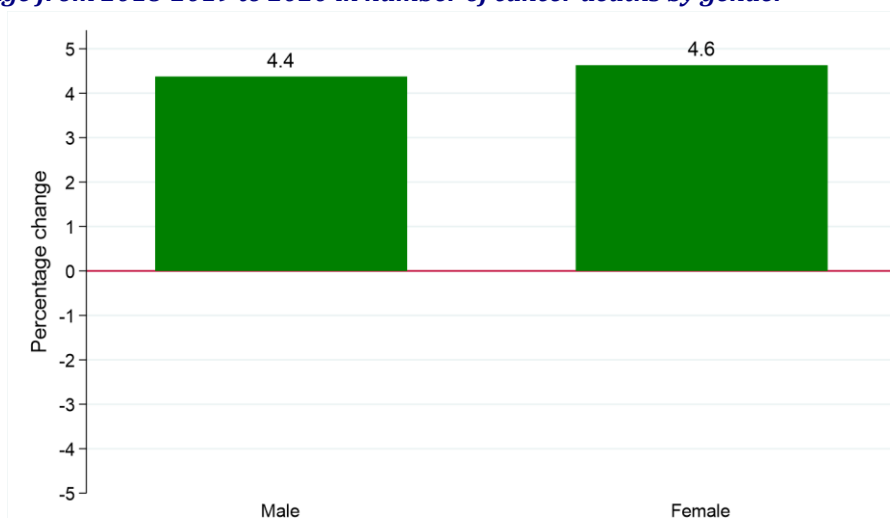
Gender	Period of death (Apr-Dec)		Percentage change
	2018-2019*	2020	
Male	1,739 (52.4%)	1,815 (52.4%)	+4.4%
Female	1,578 (47.6%)	1,651 (47.6%)	+4.6%
All persons	3,317	3,466	+4.5%

* Average deaths per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Figure 8: Cancer deaths in April-December of 2018-2020 by gender and period of death
(a) Number of deaths



(b) Percentage change from 2018-2019 to 2020 in number of cancer deaths by gender



AGE

Excluding the first quarter of each year among people aged 0 to 54 the number of deaths from cancer decreased by 17.5% from 252 per year in 2018 - 2019 to 208 in 2020. Between the same two time periods the number of deaths among people aged 65 to 74 increased by 8.4% from 848 per year to 919. The change in distribution of deaths by age between 2018 - 2019 and 2020 was statistically significant ($p = 0.026$).

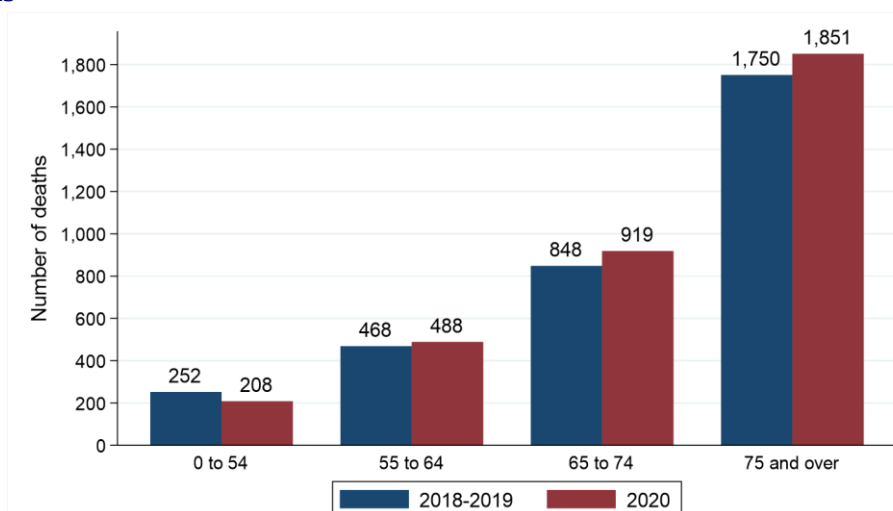
Table 9: Number and proportion of cancer deaths in April-December of 2018-2020 by age and period of death

Age group	Period of death (Apr-Dec)		Percentage change
	2018-2019*	2020	
0 to 54	252 (7.6%)	208 (6.0%)	-17.5%
55 to 64	468 (14.1%)	488 (14.1%)	+4.3%
65 to 74	848 (25.6%)	919 (26.5%)	+8.4%
75 and over	1,750 (52.8%)	1,851 (53.4%)	+5.8%
All ages	3,317	3,466	+4.5%

* Average deaths per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Figure 9: Cancers deaths in April-December of 2018-2020 by age and period of death

(a) Number of deaths



(b) Percentage change from 2018-2019 to 2020 in number of cancer deaths by age at death



HEALTH AND SOCIAL CARE TRUST

Excluding the first quarter of each year among residents of Western HSCT the number of deaths from cancer decreased by 3.3% from 516 per year in 2018 - 2019 to 499 in 2020. Between the same two time periods the number of deaths among residents of South Eastern HSCT increased by 10.1% from 651 per year to 717. The change in distribution of deaths by HSCT between 2018 - 2019 and 2020 was not statistically significant.

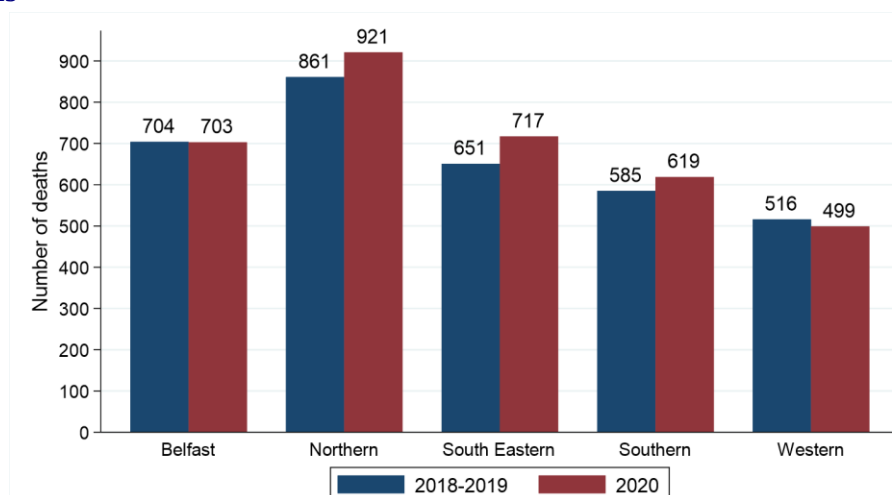
Table 10: Number and proportion of cancer deaths in April-December of 2018-2020 by Health and Social Care Trust and period of death

Health and Social Care Trust	Period of death (Apr-Dec)		Percentage change
	2018-2019*	2020	
Belfast HSCT	704 (21.2%)	703 (20.3%)	-0.1%
Northern HSCT	861 (26.0%)	921 (26.6%)	+7.0%
South Eastern HSCT	651 (19.6%)	717 (20.7%)	+10.1%
Southern HSCT	585 (17.6%)	619 (17.9%)	+5.8%
Western HSCT	516 (15.6%)	499 (14.4%)	-3.3%
All persons	3,317	3,466	+4.5%

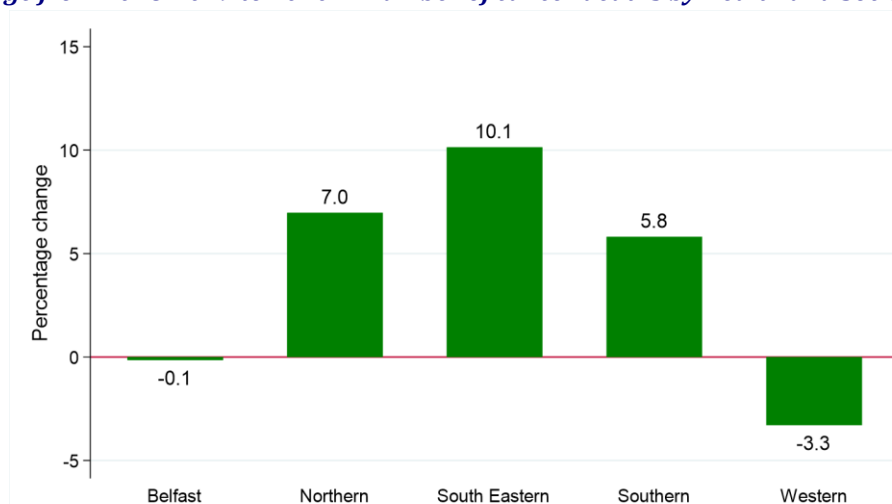
* Average deaths per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Note: Deaths with unknown Health and Social Care Trust are included in totals

Figure 10: Cancer deaths in April-December of 2018-2020 by Health and Social Care Trust and period of death
(a) Number of deaths



(b) Percentage change from 2018-2019 to 2020 in number of cancer deaths by Health and Social Care Trust



DEPRIVATION

Excluding the first quarter of each year among residents of the most deprived areas the number of deaths from cancer increased by 9.2% from 666 per year in 2018 - 2019 to 727 in 2020. Between the same two time periods the number of deaths among residents of the least deprived areas increased by 6.5% from 631 per year to 672. The change in distribution of deaths by deprivation quintile between 2018 - 2019 and 2020 was not statistically significant.

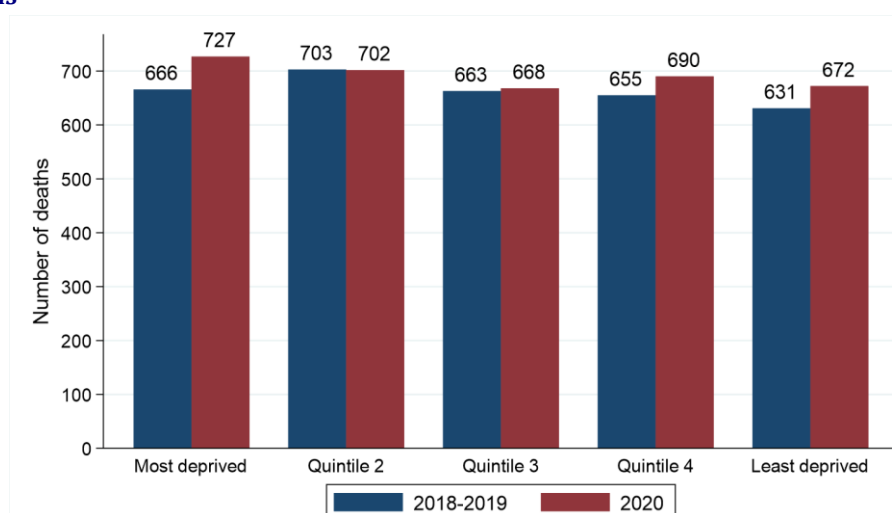
Table 11: Number and proportion of cancer deaths in April-December of 2018-2020 by deprivation quintile and period of death

Deprivation quintile	Period of death (Apr-Dec)		Percentage change
	2018-2019*	2020	
Most deprived	666 (20.1%)	727 (21.0%)	+9.2%
Quintile 2	703 (21.2%)	702 (20.3%)	-0.1%
Quintile 3	663 (20.0%)	668 (19.3%)	+0.8%
Quintile 4	655 (19.7%)	690 (19.9%)	+5.3%
Least deprived	631 (19.0%)	672 (19.4%)	+6.5%
Northern Ireland	3,317	3,466	+4.5%

* Average deaths per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Note: Deaths with unknown deprivation quintile are included in totals

Figure 11: Cancer deaths in April-December of 2018-2020 by deprivation quintile and period of death
(a) Number of deaths



(b) Percentage change from 2018-2019 to 2020 in number of cancer deaths by deprivation quintile

